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Innovation for inclusive development in Southeast Asia: the roles of regional coordination mechanisms

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Abstract In the past, studies on inclusive development involve mainly the perspective of equitable distribution of economic and societal outputs. This study, however, takes a different approach and analyses the potential roles of regional coordination mechanisms (RCMs), specifically universities and research council’s networks within
Southeast Asia, in disseminating the innovation-related activities for inclusive development or Innovation for Inclusive Development (IID). The literature on innovation intermediaries within the realm of innovation systems studies was used to establish the framework of the study. The findings indicate that RCMs have a huge potential role to play. However, due to a number of reasons, including lack of funding support, lack of attention and commitment to IID, weak engagement with industry and non-governmental organisations, the implementation of the IID activities was rather poor. As a whole, the study argues that current approaches are not well positioned and it is fragmented preventing the effective use of RCMs despite their potentials for IID efforts. The study attributes this to the systemic failures in the regional coordinating systems. In enhancing the role of RCMs in IID, this study recommends the promotion of IID platform, the leveraging of non-governmental organisations and industry as well as energising the Southeast Asia engagement in promoting IID.

Keywords: Inclusive development; grass-roots innovation; intermediaries; social INCLUSION; ASEAN.

1. Introduction

In the realm of development studies, efforts in reorienting towards a more ‘inclusive innovation’ path have an important role to play in overcoming issues pertaining to economic growth, social and economic development (Chataway et al. 2014). Indeed, the concept of ‘inclusive’ and its corollary, ‘inclusive development’, has become part of the development agenda at both national and regional levels. Likewise, common issues and problems faced by countries, e.g. environmental, economy and societal well-being problems, can be effectively handled if and when better regional cooperation is established especially when sharing of innovative solutions among countries is promoted. Nevertheless, a review of the literatures shows that there have been a few attempts in examining the potential role of coordinating networks for inclusive development at the regional level.

More often, in past studies, inclusive development focuses on equitable distribution of economic and societal outputs (such as Cook 2006; Edwards-Schachter et al. 2012; Gupta 2012; Lawson 2010). Among others, the literature also focuses on the discourses on the intermediary roles of non-academic and independent networks such as those regional networks amongst non-governmental organisations (NGOs) and the wider civil society organisations (CSOs). For instance, a landmark study on Science and Technology Innovations for the Base of the Pyramid in Southeast Asia (iBoP Asia) postulated that the roles of intermediation in promoting and supporting pro-poor innovation in science and technology are perhaps more commonly associated with development-related programmes of NGOs or other non-state actors. These literatures mainly focus on the role of NGOs acting as the bridging agents between the society and the state (Romero et al. 2012).

Despite the progress in the literatures on the roles of non-governmental actors as intermediaries in inclusive-related development programmes, the potential roles of universities and research councils coordinating networks, which are mainly academic and state-backed, are less explored in Southeast
Asia. Indeed, there is a distinct lack of analysis on the role of these academic and state-backed regional networks despite them having an active presence in coordinating regional activities. Given that universities and research councils are the main sources of innovations, there is a crucial need for more empirical evidences to examine the issue on the intermediary roles of this type of coordinating networks in promoting innovation for pro-poor programmes in the region. Hence, this study has been positioned from that perspective in addressing the regional Innovation for Inclusive Development (IID) efforts and examining the impacts of intermediaries in the context of universities and research councils and regional coordination mechanisms (RCMs) in fostering regional IID-related activities in the case of Southeast Asia.

This study aims to provide a regional assessment on both the effectiveness and efficiency of the existing universities and research councils and the RCMs, in performing their roles as intermediaries between the research networks and society in IID efforts. It adopts the concept of innovation intermediaries (see Bessant and Rush 1995; Howells 2006; Kilelua et al. 2011) in examining the performance of IID efforts in Southeast Asia. In this aspect, the study attempts to investigate both the driving forces and hampering factors affecting the effective and sustainable engagements among RCMs for IID, and propose feasible strategic thrusts for fostering the IID efforts in Southeast Asia by promoting network building through the RCMs.

In this study, IID is generally defined as ‘a continuous effort in translating the outputs from innovation-related activities to all levels of communities — especially the vulnerable groups or individuals — that catalyses good progress in both the physical and social well-being of development’. In this context, IID occurs if the innovation recipients continuously adopt, learn, assimilate and exploit new products (e.g. equipment, tools, materials, consultancy services, etc.) or processes (e.g. know-how, production techniques, manuals, good practices, etc.) from innovation suppliers (e.g. universities, research councils, individual researchers, etc.), which impacts the overall aspects of societal life. Such new products or processes should be significantly new or improved to the innovation recipients (i.e. society), but may not be new to the world or other communities. The concept of idiosyncratic nature and the actual mix of rationality sustainability (see Lundvall et al. 2002) of the effort applies here.

This study contributes in a number of ways. First, the study unveils the role played by the universities, research councils and RCMs, and identifies the crucial barriers including its strengths, weaknesses, opportunities and threats (SWOT). Second, it provides policy recommendations for fostering the current RCMs for IID in Southeast Asia, which is also consistent with Association of Southeast Asian Nations (ASEAN) Economic Community 2015, which adheres to the philosophy of inclusive and sustainable development for all in enhancing the well-being and livelihood of the people through education, research, social welfare and poverty alleviation. Third, the evidence in this study provides lessons and insights for other regional platforms to position themselves more effectively.

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This paper is further structured as follows. Section 2 presents the theoretical background of RCMs as intermediaries in IID. Section 3 describes the research design of the study. The main findings and discussion of the study are provided in Section 4. The study ends with discussions on issues, challenges and policy recommendations.

2. Conceptualising RCMs as intermediaries for inclusive development

Increasingly, universities are mandated to perform three core missions, namely teaching, research and outreach, whereas research councils are focused on national research and policy agenda-setting and funding as well as dissemination of research results (see Arocena and Sutz 2007; Spence 2008). Both universities and research councils are important innovation system actors that contribute to development primarily through knowledge creation and, to a certain extent, diffusion through extension of services and grant-making. In this regard, universities and research councils are considered the supply side of the innovation value chain. Like efforts in commercialisation of research and development in which the ‘valley of death’ metaphor is always the main obstacle in converting an invention into a successful and concrete application at the market place, there is a lack of bridging tie between the research networks (such as universities and research councils) and the society in the dissemination of innovation-related research outcomes for the purpose of inclusive development. However, the challenges in the establishment of such efficient and effective intermediaries within a nation are immense, let alone intermediaries at the regional level that require participation and collective efforts of numerous countries. In the following subsections, the study conceptualises and discusses the nature of innovation intermediaries and their potential roles in IID-related activities. This provides the theoretical guide and justification in analysing the case study presented in this study.

2.1. The nature of innovation intermediaries

The innovation system literature is rich with accounts of various forms of interactions among universities, firms, research institutions and users. The frequency and intensity of these interactions contribute to the flow of knowledge among the various actors of the innovation system, as well as enhance their learning capabilities. Intermediate organisations in developing countries, according to some authors (see Devaux et al. 2010; Klerkx and Leeuwis 2009; Szogs 2008), can play a significant role in addressing systemic failures rooted in the production system, that is, undesirable behaviour which is repetitious, predictable (but not precisely) and hard to prevent. They can be useful in improving connectedness within a system and assisting in defining new pathways and dynamisms, particularly in the
aspect of inclusive innovation. These intermediaries, both public and private in nature, help in linking players within a technological system, and potentially act as ‘superstructure’ organisations which provide collective goods to their members and help to facilitate and coordinate the flow of information to ‘substructure’ firms (Lynn et al. 1996; Stankiewicz 1995).

In the context of knowledge management, innovation intermediaries play a key role as brokers or agents that facilitate the process of knowledge and technology transfer across people, organisations and industries. Innovation brokering, in this regard, is more than just a linking role; it also helps transform the ideas and knowledge being transferred (Howells 2006). An innovation broker, according to Devaux et al. (2010), undertakes three key functions, namely demand articulation, creation of effective innovation networks and innovation process management. Undertaking brokering activities is not easy. A number of risks and challenges to effective innovation brokerage have been identified in the literature. According to Klerkx and Leeuwis (2009), these include issues related to tensions over legitimacy, ambiguity of functions and difficulties in assessing impacts of innovation brokers. Such networking attempts to establish connections between the demand side (intermediate and end users of innovations, such as firms) and the supply side (knowledge-intensive business services and research and development [R&D] providers) of the knowledge infrastructure, as well as establishing other relevant connections (e.g. firms with other firms, firms with hardware suppliers, researchers from different disciplinary backgrounds).

However, the performance of innovation intermediaries is always hindered by the issues of funding and level of trust in a network of intermediaries. Based on the case of the Dutch agricultural sector, Klerkx and Leeuwis (2009) reveal that there are various tensions relating to the funding of innovation brokers that give rise to a funding paradox. The difficulties apply in the case of both private funding and public funding because of (1) the difficulties in ex-ante evaluation of service value and low ex-ante identifiability of benefits that affect willingness-to-pay amongst private parties; (2) funding impatience in which public funding is provided for too short a period and this impedes the innovation broker from becoming well-established and (3) individual actors who are hesitant to contribute long term to the brokers’ funding without having a short-term return-on-investment. On the other hand, Wolpert (2002) believes that intermediaries could facilitate the exchange of information about innovation amongst companies while keeping their secrets in the business cycle. The intermediaries can be trusted to maintain confidentiality because if they ever violated the terms of an arrangement, no company would hire them again. The importance of trust in knowledge brokering processes was also highlighted in Winch and Courtney’s (2007) study on 10 innovation brokers, where all the cases studied were working on a not-for-profit basis.
2.2. Roles of intermediaries in IID

Based on Howell’s (2006) research which extensively describes the nature and possible roles of innovation intermediaries, RCMs for IID in the realm of innovation intermediary studies can be described as an organisation or process — either public or private establishment — which enables the fast-tracking process of IID efforts at the regional level through the (1) creation of knowledge and facilitation of information exchange; (2) orientation of science, technology and innovation (STI) systems towards social development objectives; (3) promotion of regional collective bridging ties for science networks and (4) formulation of country and cross-country research policies.

For Kilelua et al. (2011), innovation intermediaries are characterised by a myriad of functions that support and manage innovation processes in six broad pillars: demand articulation/stimulation, network building, knowledge brokering, innovation process monitoring, capacity building and institutional support. In addition, Bessant and Rush (1995) postulate the four generic roles of intermediaries as consultants in bridging the managerial gaps, which are transfer of knowledge, sharing knowledge across the user community, acting as brokers to a range of suppliers and a diagnostic/innovation role in trying to identify what end users actually want. According to Masseret (2006), in playing their roles to optimise the supply of scientific, technological and support services with the demands and requirements of companies, the following means are used by the intermediates based on the increase of technology sophistication: information, advice, demonstration, problem-solving, training and capacity building. Collectively, literatures suggest various roles of RCMs and we summarise the possible functions and regional activities of innovation intermediaries in IID in Table 1.

The functional roles of RCMs for universities and research councils in IID can yield results through the mediation processes that synergise technological innovation and social innovation. According to Edwards-Schachter et al. (2012), there is a clear distinction between social innovation and technological innovation. Social innovation is oriented towards social and public good. Social innovation is conceived as a process involving social interactions and not explained solely by a combination of tangible forms of capital, especially social capital. On the other hand, technological innovation has a strong basis in scientific and synthetic knowledge. Universities and research councils are generally more concerned about technological innovation where the creation and dissemination of scientific and technological knowledge are always at the centre of an institution’s missions. The extension of the scientific knowledge and technological skill (and innovation) to civil society, that is, inclusive development, is somewhat sidelined as, in the first place, the institutional setting of universities and research councils is not oriented towards social
development objectives. Indeed, the participation of CSO in the design of research programmes of universities and research councils is rare and this results in the less practical use of research outcomes for the wider development constituents. Hence, CSOs often face difficulty in digesting the

| Table 1 Possible functions and regional activities of intermediaries |
|-----------------------------|-------------------------------------------------|
| Functions                   | Regional activities                              |
| (1) Information and know-how sharing | - Assess knowledge gaps and fill gaps in information and know-how  
- Facilitate and coordinate the diffusion and exchange of information  
- Interface management and providing space and platforms  
- Articulate experiential and indigenous knowledge  
- Initiate peer exchange and demonstrations  
- Locate key sources of knowledge |
| (2) Managerial capability development | - Initiate organisation and maintain group dynamics  
- Build managerial skills training and competency  
- Work on attitude and practice  
- Facilitate changes in rules and regulations  
- Determine accreditation, certification and standards  
- Strengthen project management competency |
| (3) Network development | - Link collaborators and form partnerships  
- Effect change with science networks and local collectives  
- Build trust, manage conflicts and complementary assets sharing |
| (4) Technological competency building | - Develop technical skills and ability in selection of appropriate techniques  
- Develop new application for new technologies  
- Transfer and exploit technology |
| (5) Policy advisory | - Formulate research policy that orients the science system to socio-economic objectives  
- Align agendas and link science, policy and practice  
- Articulate the specific needs and support dissemination of knowledge to society  
- Evaluate outcomes |

research outcomes of existing RCMs. Based on the literature, the study conceptualises the bridging role of RCMs between social innovation and technological innovation (see Figure 1).

For Murray et al. (2010), social innovation has moved to the centre stage of development during the 1990s, as existing structures and policies have found it impossible to crack some of the most pressing issues such as climate change, the worldwide epidemic of chronic diseases and widening inequality. Various intermediaries are required for social innovation, namely policy-makers who can help to create the right conditions, foundations and philanthropists who can fund and support, social organisations trying to meet social needs more effectively and social entrepreneurs and innovators themselves. However, the social field generally lacks specialist intermediaries of this kind. Worse still, the current approaches used in promoting diffusion were supply-focused and not demand-driven.
This study attempts to bridge the lack of empirical evidence, on the one hand, taking universities and research councils, the RCMs in Southeast Asia as a case study, so as to demonstrate insights into normative principles for IID; on the other hand, seeking to identify the systemic failures in the RCMs structure to inform policy-makers aspiring to make the IID process more sustainable. The study, first, presents the case, based on the core idea proposed by Howell (2006) and Kilelua et al. (2011) on innovation intermediaries and to articulate the supporting roles of RCMs in IID. The study reports the reflections on which systemic failures have led to unproductive outcomes of the RCMs and what have pushed some RCMs into a vulnerable position in sustaining their IID efforts. The study further recommends measures to address some of the failures.

3. Research design

Southeast Asia is known as one of the most populous regions in the world. With a total population of 608 million in 2011 — nearly 9% of the global population — Southeast Asia is home to a large and growing pool of highly skilled, low-cost workers, shaped by years of domestic and foreign capital investment (PWC 2012). For instance, with a population of 209 million in 2001, Indonesia comes just after China, India and the United States of America in terms of population size (Lim 2004). The growth of Southeast Asia’s labour force in the ‘fastest five’ (i.e. Indonesia, Malaysia, the Philippines, Thailand and Vietnam) has been more than twice that of China’s growth rate each year from 2005 to 2009. This has spurred Southeast Asia’s development and it remains its greatest competitive strength (PWC 2012). The competitive advantage of a burgeoning population has made Southeast Asia a compelling case in innovation studies.

This study takes a qualitative research approach, given the fact that there is a lack of understanding and availability of past researches on dimensions of effective regional coordination and their driving factors, especially in the context of five Southeast Asian countries, namely Malaysia, Thailand, Indonesia, Philippines and Vietnam. These countries are selected in this study based on their similarities in their economic activities and issues concerning inclusive development. Trade is notably championed by the selected countries as a means to increase manufacturing outputs, and to some extent, it has generated the multiplier effects that have advanced their economies; however, they face the risk of rising income gap inequality and ultimately being caught in the middle-income trap (Abdon et al. 2012). This is arguably attributed to the limited capacity in inclusive development planning. As they anticipated that the pursuit of economic growth without inclusive development might not be sustainable for long-term development, they mandated their universities to work closely with universities around ASEAN region to respond collectively to the proposed ‘third role’ of the university and public research institutions (Arnkil et al. 2010), which
is to enhance the socio-economic-cultural development of the society. It would, therefore, be interesting to explore the mechanism and performance of RCMs for universities and research councils in Southeast Asia.

The empirical evidences were obtained through a series of in-depth interviews and focus group discussions with the senior officers of the active RCMs for universities and research councils in Southeast Asia, namely ASEAN University Network (AUN), AsiaEngage, Southeast Asian Ministers of Education Organisation–Regional Centre for Higher Education and Development (SEAMEO-RIHED), Southeast Asian Ministers of Education Organisation–Regional Centre for Educational Innovation and Technology (SEAMEO-INNOTECH), South East Association for Institutional Research (SEAAIR) and Asian Heads of Research Councils (ASIAHORCs). These organisations were established to commit themselves in facilitating the innovation process of RCMs. They emerged to be the critical proxies for RCMs. It is, therefore, interesting to learn about what and how their programmes shaped and influenced inclusive development. Apart from RCMs, the participating members of such network were also included and interviewed in five countries (see Appendix 1 for a complete list). The positions of the respondents ranged variously from policymakers to founders, presidents and active members of the organisations. The interviews were systematically organised where the interview, data collection and analysis processes were guided by the following research questions:

(1) Scope and characteristics of intermediary activities:
   - What are the roles and functions of these mechanisms that relate to socially inclusive innovation or IID?
   - How do these mechanisms function?

(2) Performance of intermediaries:
   - What is the level of participation of Southeast Asia’s universities and councils?
   - What are the driving factors and hampering factors that affect the partnership between Southeast Asia’s universities and research councils with these intermediaries?
   - What are the success and failure cases? And what are the lessons that can be drawn from these cases?

(3) Policy and programme recommendations:
   - How can Southeast Asia’s universities and councils nurture partnerships with these intermediaries, and how do they sustain these partnerships?
   - What kind of structural and mind set changes need to take place in Southeast Asia’s universities and councils?
Based on the theoretical justification provided earlier, our analysis began by examining the institutional setting and mechanism of the RCMs. We then observed the roles and activities actualised in the setting to document the institutional routine rooted in the organisational practices. Consequently, we stylised the SWOT of RCMs through and provided an argument of the systemic failure to the case study. This framing of RCMs is intended to provide a guide to policy-makers in enhancing the RCMs for inclusive development.

4. Findings

This section analyses the information obtained from the in-depth interview sessions with the main objective of answering the research questions. The section is divided into two parts as shown: the first subsection provides an overview on the institutional setting and mechanisms used by the RCMs for the purpose of IID in Southeast Asia. The second subsection examines the performance of selected RCMs within the SWOT analysis framework. Following the qualitative approach, as a means of evidence and to provide a better description to the analysis, personal communications were cited.

4.1. Institutional setting and mechanisms of RCMs for universities and research councils

The nature of RCMs in Southeast Asia is explored from four dimensions based on the framework of the study: institutional setting, memberships and participants, IID-related activities and types of regional mechanisms and activities initiated by these RCMs. The summary of the nature of these RCMs is provided in Appendix 2.

In general, all these RCMs are given autonomy in decision-making and programme designing through the establishment of a Board of Governors or Steering Committee. The membership of these RCMs is open directly to the researchers or through thematic themes or programmes assigned to university members. In some cases, membership is open to members of NGOs, chambers of commerce, research institutions, government agencies and industries. There is minimal support from the parent institutions and these RCMs are supported by the respective host countries. IID activities are not accorded priority in almost all the RCMs except in AsiaEngage. The IID activities undertaken by the other RCMs are confined to social engagement through education and training. Academic-related activities remain the focus of these RCMs given that they comprise universities and research councils. Fieldwork and research project funding do not feature in the list of programmes organised by these RCMs.

Information and know-how sharing and network development are the two most common and frequent activities carried out by the RCMs.
Managerial capability development (e.g. the introduction of standards and quality assurance) and policy advocacy that usually involve the engagement of high-level policy dialogues are also among the main thrusts of RCMs, especially for AUN, the SEAMEO centres and ASIAHORCs. Nevertheless, only ASIAHORCs and SEAMEO-INNOTECH offer scope for technological competency development to their members and participants. One apparent trend observed is that the coverage of RCMs as intermediaries decreased when the degree of commitment and complexity of those activities increased (such as technological competency building and policy advocacy which required high commitment and were time consuming).

In terms of the types of mechanism used, the workshop, roundtable discussion, forum or meeting, and publication or online courseware are among the most frequently employed mechanisms. Meanwhile, there are also a number of activities such as training and workshops, as well as joint projects (through MOUs, students exchange, etc.). Most often, these knowledge exchanges through conferences, forums and publications are difficult to transfer to the grass-roots levels. The introduction of standards and quality is also a common activity among the RCMs. However, none of the RCMs offer project funding or foresight activities for IID activities in Southeast Asia. The institutional capacity of RCMs to undertake IID coordination work that would effectively deploy their university members in their own countries and societies to specifically promote innovation for inclusive development is limited. Since their members are limited to universities and research councils, the nature of these activities is concentrated mainly on knowledge sharing.

4.2. SWOT analysis

In order to provide a better understanding of the current status and performance of RCMs as intermediaries in Southeast Asia’s IID, a SWOT analysis was undertaken to evaluate the strengths, weaknesses, opportunities and threats of the RCMs. The findings from the SWOT as presented in this subsection reveal the internal strengths and weaknesses (S-W), and external opportunities and threats (O-T). Developing such understanding and awareness of these internal and external dimensions will provide insights for both strategic planning and decision-making in IID.

4.2.1. Strengths

There are several RCMs providing various platforms (such as conferences, seminars, policy dialogues, students’ internships and exchanges, quality assurance systems, publications, etc.) for knowledge exchange in Southeast Asia. In general, the agendas of IID – or in a broader term, inclusive
development – are part and parcel of the institutions’ objectives for the existing RCMs. Even though the IID agendas may not be the top priority of the institutions, the awareness of the importance of IID has taken root among the institutions. For instance, a thematic programme on rural development and poverty eradication has been introduced under AsiaEngage’s mission to create mutually beneficial partnerships between the research, education and volunteerism of higher education with industry and community stakeholders across the region. Also, efforts in disseminating a quality higher education and school teaching across the region as well as promoting university social responsibility and sustainable development are integrated into SEAMEO-RIHED and AUN’s vision to strengthen the regional coordination for the promotion of human resources development and higher education, science and culture. Subsequently, the awareness of the need for IID is translated into the programmes initiated under the administration of each institution, particularly in the form of regional conferences and policy dialogues. One research council officer highlighted that:

At present, a country like [X] does some research to solve these problems which mostly only the government will care about – not only economic but also social problems. This includes the problem of inclusive development to help poor people and disadvantaged people. We will concentrate on and prioritise the research that can answer the current problems and lead to what we call inclusive development.

(Personal Communication, 30 January, 2013)

Researchers and policy-makers are given opportunities to participate in these programmes through various platforms provided, either in their capacity as individual researchers or as representatives of the institution. In addition, open-access research materials and findings in terms of operation manuals, concept papers, conference papers, policy documents and best practices are made available online. Such platforms help the research councils and universities in terms of

- establishing networks, linkages, exchange of knowledge and opportunities for collaboration;
- sharing experiences and facilitating the search for solutions to pressing problems which contribute to shortening the learning time;
- building the intellectual capacity of students, researchers and personnel through participation in seminars, delivering papers, training, postdoc fellowships, etc.;
- drawing lessons, experiences and good practices from other countries, as well as learning other countries’ cultures; and
- securing funding and scholarships.
All the existing RCMs are supported by the centre’s decision-making authority at the regional level (such as the ASEAN Secretariat, subject to approval from member states) and at country level where the secretariat of these RCMs is hosted (such as the governments of Thailand, Malaysia and the Philippines). The involvement and commitment from these respective governments – especially in terms of awareness of the importance of IID and the adoption of a holistic view of inclusive development – provide a solid boost to realising the stated objectives of inclusive development.

4.2.2. Weaknesses

Effective university and research RCMs that are capable of translating academic works into IID are currently absent in Southeast Asian countries. While the RCMs are obliged to respond to the ‘third’ role of the university and public research institutions, the current mechanism has emerged merely theoretical even though there is a great potential available. The types of mechanism used among the existing RCMs in IID – which are mainly meeting room and classroom oriented – have become the main concern for all the interviewees from both research councils and universities. The RCMs are rather oriented towards academic excellence, whereas action-oriented research at the project level is limited. As IID objectives will only be realised if the recipients of the innovation – i.e. the communities – receive either physical or social development through utilisation of the innovation, such approaches that are not field-based appear incongruous or insufficient in creating the immediate impact that is hoped for by both the researchers and communities. The issues and challenges discussed during the meetings are too broad and do not specifically address the specific needs of any Southeast Asian country. Even though country representatives who attended these activities were expected to promote specific agendas and translate these into action plans, the representatives who attended the policy dialogues were not in a position to make decisions or were incapable of committing themselves in research activities that fell under the discussed research areas in their respective country or institution. In addition, there was no follow-up activity after workshops and trainings, which made initiatives unsustainable. These shortfalls in the IID programme were seconded by one of the research council officers:

Yes, I am one of the members of [Y]. They do not perform the same activity as we do. What they usually do is set up a seminar on some topics of common concern. I think the body likes to link people together. But this approach is not benefiting the country and the council. This is because most of them are academicians. They just act like an action body to create new knowledge. They do not create motivation as well... Inclusive development does not only need research results but also needs to have good management and action research as well... I found that [Y] is still a mismatch...
Collaboration there must first come from the small group, and then we can use this kind of model of [Y] again. And I do think that [Y] is useful but it is too broad.

(Personal communication, 30 January, 2013)

Research project funding is not provided by the RCMs. In addition, we observed duplication in many programmes initiated amongst the RCMs especially in terms of seminars and conferences. Thus, the research councils and universities have to be selective in sending participants for programmes, activities and collaboration works based on their limited financial and human resources. As a consequence, RCMs that operate based on conference participation fees are facing sustainability problems. Meanwhile, prior to the closing down of the International Development Research Centre (IDRC)’s Singapore regional office in July 2012 in response to reductions to IDRC’s operating budget announced by the Government of Canada, universities and research councils, to a certain extent, have benefited through regional inclusive development flagship programmes such as iBOP Asia projects and IID programme (2011–2016). With the departure of IDRC as donor organisation in Southeast Asia, funding sources for regional inclusive development agendas have been seriously affected. Given this evidence, it is suggestive that the role of donor organisations is vital in supporting as well as complementing the IID activities of the RCMs. Otherwise, the individual member countries should commit in supporting those RMCs financially without which the functioning will be limited. Also, there is a lack of coordination, systemisation and structure in IID-related efforts. Individual lecturers and academics carry out individual projects which are not captured under a centralised database. This is mainly due to the weak communication among the members. In addition, science and technology culture is not embedded in the psyche of people. The rigid intellectual properties policies in the member countries have hindered the sharing of knowledge and technology. In addition, lack of standard and well-coordinated monitoring and evaluation processes have made the sharing of knowledge and collaboration among the participants difficult, as one of the research council officers stressed:

This is a tough initiative because the world is not homogenous. We are heterogeneous in terms of standards, capability, funding, etc. Thus, the merit review process needs to be formed, as well as research ethics.

(Personal communication, 17 January, 2013)

4.2.3. Opportunities

Although Southeast Asia is considered heterogeneous and diverse among regions, some common issues that revolve around Southeast Asia such as
nutrition, environment, sustainability, poverty, safety and security, etc. can be potentially developed in IID agendas. Even though the emphasis on inclusive development may vary among universities and research councils, researchers generally acknowledge the need for IID and hold a positive view on the potential roles played by RCMs in IID. Solving economic as well as social problems is always considered a part of the research agenda promoted by the respective universities and research councils. In this regard, two research council officers stated that:

Some issues such as climate change, global warming, and haze that are common to this region can be the basis to start this initiative. There are rich areas that can be picked if we put our minds together. For example, Southeast Asia is already well known for its natural resources with three mega-diverse countries, i.e. Indonesia, Malaysia and the Philippines. There is much ‘green gold’ to exploit. But what is happening at the moment is just rhetoric even though there is great potential out there. Besides, almost three quarters of the land area in Southeast Asia is surrounded by sea. Among the coral and seaweed, there are things that can be utilised and turned into industrial products.

(Personal Communication, 17 January, 2013)

In many cases, people already do IID, like poverty elimination, education for all, etc. But not many of them call these activities IID. Cognitively they don’t think that these activities are IID.

(Personal Communication, 11 March, 2013)

Also, since Southeast Asia is a gene-rich region and high in biodiversity, there is a potential for Southeast Asia to work together with the technology-rich countries from Europe and America. The collaboration between these two forces (gene-rich and technology-rich countries) will generate tremendous impacts. This is why we need regional efforts in R&D which would be very timely in Southeast Asia.

4.2.4. Threats

One interviewee maintained that the silo mentality is endemic in this region. He argued that such a mindset undermines the sharing of resources as well as forging collective approaches in addressing cross-sectoral issues such as IID. Additionally, a lack of philanthropy particularly for supporting research has hindered the growth of private funding for promoting activities that are not well assisted by the state. Thus, the lack of trust and cohesiveness are among the major impediments of regional collaboration in ASEAN. A member of a research council echoed this point explicitly:
But again, this cannot be considered as a best model because we are not ready to provide funding in a collective sense. There is money from America, UK, Australia, but not from this region. The serious question is that if we can commit some funding for R&D for our own country, we should also be prepared to think collectively and contribute toward a common fund. Philanthropy or establishing endowment is not a way of life in this region. Inclusivity, eventually, is a mark of a developed and matured society.

Personal Communication, 17 January, 2013

What appears to be central for the success of IID is the collective effort from the countries without the prejudices of national commitment or even nationalism. The regional collaborations that were established based on the government-to-government framework appear to be not fruitful in IID. This is largely due to the political structure in ASEAN that does little to promote networking among peers in this region. Also, the lack of trust among member states is one of the key challenges. As a result, IID in Southeast Asia has to be initiated individually by the researchers and this limited scope reduces the impact of the programme. One interviewee provided the following insights:

Trust remains a main problem. Government-to-government mode of engagement has a lot of difficulties and sometimes become too formalistic, whereas if we go among our own kind or like-minded individuals, that is, the research community, it will be easier at the preliminary level. The entry point will be easier and things can be examined in a scholarly and objective way... IID is done at the individual country level, or small groups like NGOs. We don’t have IID committees in the ASEAN structure yet. Perhaps the IID concept is new.

(Personal Communication, 17 January, 2013)

Moreover, the heterogeneous stages of development in ASEAN have hindered the performance of RCMs given that priorities are set differently. While some universities are keen to develop IID agendas in their academic routines, many witnessed the absence of such efforts in building RCMs for IID. For example, we observed that delegates from universities in Laos and Cambodia participated in many round-table discussions and attended conferences organised by the RCMs. The participants were keen in learning from universities in Indonesia, Malaysia and the Philippines which are relatively ahead in terms of governance systems as well as initiatives. In contrary, in more advanced countries like Singapore, IID is undertaken on an ad hoc basis in the universities given the different priorities given by the government. For the case of Singapore, IID is not a priority in their policy agenda. We observed that there is a wide variation in the way universities
of different countries engage in the issue of IID. Their responses are very much shaped by their respective national institutional settings.

4.3. Salient themes on RCMs’ activities

RCMs emerged as an important platform for scientific communities to establish academic research networks and exchange research findings or knowledge. Scholars within the communities are given opportunities to explore and adopt best practices or other institutional routines in achieving inclusive development from other countries. The common academic (or classroom) routines and operations are used extensively in constructing the RCMs’ platforms. Many of the activities are designed for and targeted exclusively at academic scholars who wish to pursue the development of theoretical perspectives and a career in academic publishing. However, there is duplication of efforts in each RCM as most of them pursue similar programmes and operations in constructing IID activities. In addition, such routines may have overlooked the importance of action-oriented research that would definitely benefit the underprivileged members of the society.

There is somehow general consensus in the academic communities that the existing routines would eventually lead to some positive changes in IID. The IID research findings communicated or published under each RCM may eventually convince policy-makers to develop specific infra-structures for specific needs. However, what we have observed in our study is an absence of collective commitment between governments (and between universities/research councils) of member countries in pursuing common interests that are related to IID, let alone addressing specific problems in Southeast Asia.

5. Systemic failures

This section highlights the systemic failures of RCMs in engaging IID and their implications for the management and policy directions of RCMs, particularly the roles in facilitating IID. The highlights of this section will provide policy-makers a broad overview of the issues and positions of RCMs in promoting IID in this region. A number of recommendations towards enhancing the roles of RCMs in IID are made in the following sections.

5.1. Growing but slow recognition of IID

In member ASEAN countries themselves, the subject of IID is slowly gaining recognition and is being pursued – although in varying degrees of intensity – by the RCMs under study. IID activities do not feature prominently in all the RCMs except AsiaEngage. This lack of prominence can be traced to the establishment of the RCMs which were largely founded on
the pursuit of educational objectives. Most of the current RCMs’ activities are focused in developing academic excellence such as organising conferences and seminars. Although the impacts of such activities to IID cannot be immediately observed, the contributions of these activities in the longer term should not be underestimated. Workshops, conferences, forums and policy dialogues are good mechanisms to raise awareness. In order to consolidate IID activities in universities or research institutions, visibility for the outputs of these classroom-oriented activities needs to be provided through publications and social media. Besides, the element of community engagement needs to be integrated as part of the promotional criteria in universities and research institutions. Otherwise, we cannot expect academics to take IID activities seriously.

5.2. Lack of funding support

All the RCMs examined emphasised lack of funding as the key reason for their weak support of IID activities. Only RCMs that enjoy governmental support such as AsiaEngage are able to initiate a number of IID activities. In most cases, funding has only been confined to the project completion and not its maintenance. Given the prospects of tightening budgets for R&D and the low priority of IID projects in the national hierarchy of R&D funding, it becomes imperative for RCMs to engage more actively with industries, NGOs and other institutions — including other RCMs — to share the costs of engaging with underprivileged communities.

5.3. Poor perception of IID

Engagement in IID activities has been viewed negatively by researchers, since such activities are deemed ‘non-academic’ and do not enhance the reputations of the researchers. Such negative perceptions need to be addressed in order to ensure that community-related projects receive sufficient attention and attract the interest of researchers – particularly those addressing the needs of the marginalised sections of the population. AsiaEngage has ensured that strict academic norms are observed when funding IID projects to enhance scholarship in this field of research. Researchers are expected to measure the impacts of their IID projects in order to demonstrate that such projects can yield substantial benefits for all parties if properly undertaken.

5.4. RCMs lack the IID culture and commitment in their operations

Almost all the RCMs under study (with the exception of AsiaEngage) are focused on promoting educational and scientific research. This orientation can be traced to the original mandate of these organisations which has not
changed much since their establishment. Many of these organisations have a narrow perspective on IID and accordingly, concerns for inclusiveness are not embedded in their internal operations. Thus, their capabilities in managing such projects are limited. Promoting IID projects requires a broad perspective and understanding of the key stakeholders. It requires the supported organisation to forge effective linkages and platforms with all the diverse groups as well as catalysing problem-solving among the various participating groups. Such a holistic perspective is not evident in most of the RCMs given their lack of familiarity in funding IID-related projects.

5.5. Weak managerial leadership of RCMs

Following the lack of tradition in funding IID projects as described earlier, many RCMs have not been able to develop their internal capabilities in managing IID projects. This deficiency has also undermined the ability of the RCMs to initiate more multi-stakeholder approaches. Universiti Kebangsaan Malaysia (UKM) appeared to be one of the RCMs that had demonstrated the commitment and leadership that can contribute towards enhancing the impact of IID projects. Funding of community-related projects of UKM involved — among other things — the development of a community of champions who drive the project and sustain the IID efforts after the initial funding has ended. In addition, UKM has mandated that the IID funding will only be awarded to projects that can demonstrate impacts to the society. To motivate researchers to engage in community and IID-related projects, UKM has agreed to incorporate the IID engagement of researchers as part of the promotion criteria for the researchers. Furthermore, the priority of UKM funding is given to collaborative projects involving researchers and the community NGOs.

The governance of UKM has engendered an environment whereby engagement with IID projects is promoted and recognised. Such governance underscores the prevailing leadership’s willingness in many RCMs to make the necessary changes in order to achieve the desired results. The case of AsiaEngage (which is hosted by UKM) demonstrates what enlightened leadership can achieve in steering the organisation towards its objectives. AsiaEngage promotes among other things, meaningful and impactful capacity-building programmes, besides hosting a one-stop information portal that provides a platform to document and make visible IID works across the region. AsiaEngage can be regarded as one of the successful organisations which exhibit an inclusive leadership and management style. The importance of progressive leadership is highlighted by the feedback from the interviewees:

It is easy to establish a new network, but managing it in a meaningful way is somehow difficult, particularly in aiming for concrete joint
programme outputs. It may seem nice just looking at the sequence of meetings/symposiums/joint research projects, but in a more realistic sense, it is more useful to keep [Z] as a forum of information sharing at the moment.

Because once you provide visibility and then go to the next stage of upscaling, you might invite partners from across the region. That is how it happens. You cannot invite partners across the region until you work on something first. So once you work on something and you have the potential to upscale it, that’s when the partnership will take place, and that’s where the interest will take place across the ASEAN. I am very confident about it.

(Personal Communication, 22 February, 2013)

5.6. Absence of coordinating role on IID by ASEAN

ASEAN collaborative efforts in IID have not been significant. This is because most of these efforts were targeted at traditional projects focusing on scientific and economic development. Recognising this deficiency, the Krabi Initiative was endorsed by the ASEAN Ministers of Science and Technology in December 2010 which expanded the scope of collaboration to embrace IID. However, this initiative has yet to be implemented. The lack of ASEAN collaborations in IID has led to each country pursuing its own respective agendas. There have been no cross-national programmes on IID among selected countries in this region. The existing RCMs have also not forged cross-country initiatives, as they have been more focused on individual and institutional projects. The lack of such collaborative initiatives has stifled the adoption of common approaches towards IID in this region. There are no organised efforts to compile information on inclusive development in ASEAN. Additionally, standards and indicators for inclusive development to measure country performance have not been developed. A strong coordinating role by the ASEAN Secretariat would provide the necessary fillip to forge greater cross-country collaborations in IID, besides getting more RCMs to pursue cross-national programmes.

5.7. Minimal engagement with NGOs and business enterprises in IID

RCMs do not have the competency in reaching out to the society when performing their IID roles. Such engagements are best undertaken in partnership with NGOs and business enterprises. However, most RCMs have almost minimal engagement with NGOs and industries in promoting IID activities. This situation can be improved if RCMs promote collaborative approaches among research institutions including universities and NGOs.
as well as industries in IID activities. Such collaborative approaches are important since the generation and application of knowledge are no longer the monopoly of any one organisation. Instead, for IID to flourish, researchers from universities and public research institutions must adopt a proactive attitude towards working with their target beneficiaries instead of hoarding the knowledge that they have generated. They need to ensure that the knowledge that they have produced is aligned to the actual needs of their end users. The view of knowledge as a public good was pointed out by one of the interviewees:

If you think that this knowledge can be a public property, then share the knowledge. I do believe that 90% of the knowledge can be shared and the balance 10% which relates to proprietary knowledge and national security needs to be protected.

(Personal Communication, 30 January, 2013)

Partnerships with business enterprises through the agenda of corporate social responsibility will give RCMs a much needed additional funding boost. However, such engagement is not without problems as the current implementation of CSR activities in ASEAN are generally very traditional in nature such as in a form of charity and donation. In other words, supporting IID-oriented projects, which appear to be the main focus of the universities and research RCMs covered in this study, is not the top priority of CSR programmes in many ASEAN member states. For this, the policy-makers among the member countries should think beyond the traditional approach to CSR and incorporate the role of innovation in the development process. This may require a shift in the mindset that universities and research councils are able to deliver and support the needed outcome for the society.

RCMs can play a vital role in promoting this knowledge exchange by supporting projects that foster knowledge-building activities with the community. Given that knowledge production is characterised by its heterogeneity and organisational diversity, it becomes imperative that knowledge exchange activities among the various actors of the knowledge value chain be enhanced. This constant exchange of knowledge among the various participants of the knowledge system is what distinguishes a dynamic innovation system from one that is sterile. Making this happen is a key task of leadership as pointed out by one of the interviewees:

Your style of leadership is very important. It is not an authoritative style at all. I always use the term stewardship. You have to handle and make things happen with people over whom you have no real authority. You have to show them the value that you can give to them, and then they will come on board.

(Personal Communication, 22 February, 2013)
6. Policy implications and conclusions

This study provides a detailed snapshot of the roles of selected RCMs in promoting IID activities. While IID is slowly gaining importance in the agendas of countries in this region, there are a number of aspects that the relevant authorities need to address, as indicated in this report. Based on the empirical evidence, the study submits five recommendations as follows:

- **Energising ASEAN engagement in promoting IID**: Presently, ASEAN’s role in promoting IID appears to be minimal. There are no specific programmes to drive this agenda although recognition of the importance of IID was endorsed at a ministerial meeting in 2010. A specific ASEAN initiative on IID undertaken by the relevant ASEAN committee would help to focus member countries’ activities, pool limited resources to address common problems and enhance collaborative approaches with RCMs, industry and NGOs. Nevertheless, such efforts need to be carefully planned and operated to avoid overlapping with other existing development-oriented committee and task forces in ASEAN such as ASEAN Foundation.

- **Leverage NGOs and industry in promoting IID**: Partnerships with industry and NGOs have not characterised the activities of most RCMs. This lack of engagement has meant that expertise and resources from NGOs and industry energy were not mobilised to drive the RCMs’ IID agendas. It is widely acknowledged that NGOs are more adept than universities or public research institutions in social work. In short, it becomes necessary for RCMs to tap the expertise of NGOs and industries in promoting IID activities.

- **Enhancing management of RCMs**: Managing IID activities require skills that are very different from those that are demanded for normal research projects. Many boundary spanning activities are involved in IID projects, and RCMs need to appreciate the need for such orientation and build their capabilities accordingly. RCMs will do well if they focus their support on specific areas and foster greater collaboration. A committed leadership is crucial to affect these changes. While the RCMs in promoting IID is evidently less effective in this study, there are other functional RCMs of ASEAN that emerged to perform specific tasks or address specific geostrategic issues. For example, the ASEAN Institute of Strategic and International Studies (ASEAN-ISIS) was established in 1988 as an institute to coordinate dialogues concerning strategic and international issues affecting countries of Southeast Asia for the policy scholars and analysts. It gains the recognition from the ASEAN member states as a valuable mechanism for the ASEAN policy-making process. Future research may be needed to explore the functional working model of ASEAN-ISIS and the factors that led the organisation to gain the trust of the ASEAN member states in coordinating ASEAN policy.
agendas. The study may provide useful lessons and guides for RCMs in promoting IID to be an effective mechanism in advancing IID activities.

- **Promoting IID platform for like-minded researchers:** Instead of targeting collaboration at the government-to-government level, more fruitful collaboration can be fostered at the researcher level or research organisations among countries in this region. RCMs should examine the possibility of establishing networks among like-minded individuals or research communities. By sidelining the political elements and focusing more on the scholarly aspects of the research, it will be far easier to attract researchers to work collectively on common agreed-upon themes.

- **Upscaling IID efforts:** Although most of the RCMs’ activities are currently focused on academic development, their contributions to IID should not be underrated. In the more integrated view of IID, social responsibility also includes how responsible academicians and researchers translate research findings aimed at enhancing peoples’ lives from a project or community level to adoption at the national level. Such upscaling will only happen if sufficient resources and commitment are displayed at the organisational level where the researchers are from. Any potential supports from various funding bodies (e.g. ASEAN foundation) should be explored for such upscaling of IID activities. IID will gain more visibility if RCMs can support such projects which promise widespread benefits to the community.

The findings support the assertion of past literature that RCMs will be more effective in IID only if there is engagement with other stakeholders in the process. Likewise, leadership matters greatly. Since most of the leaders of the RCMs are from academia, the nature of their activities and approaches is similar to that of an academic institution. Although pockets of success are observed, most often these IID activities are performed by individual universities in a specific country without the help and coordination of the RCMs. For instance, Chulalongkorn University has initiated various social engagement activities to help flood victims through its Flood Relief Centre. In doing so, the university has integrated its know-how to bring innovation and help solve some common problems of the flood victims. Students have been mobilised and it has also served as a learning experience for the students. The individualistic approach is necessary since it requires faster response time in the case of an emergency. The argument put forward for such individualistic arrangements are as follows:

- It provides them more flexibility in managing the IID activities.
- Speedy responses can be provided in the case of dealing with emergency issues.
- It reduces red tape and bureaucracy.
- Common platform of engagement (common IID interest) is difficult to establish when there are too many stakeholders and when issues only apply to the specific context of the country. Most often, IID activities are embedded into the individual country’s development programmes and plans (e.g. development programme for rural and mountainous areas in Vietnam) that cuts across various agencies and ministries.

This paper has highlighted that due to funding and resource (including human resource) limitations, RCMs are in no position to steer and shape the IID agenda. The typical approach is to engage and encourage the individual members (e.g. universities) to undertake such activities. Therefore, the commitment of the individual members is an important aspect to be considered for the success of IID activities. The case of AsiaEngage in successfully planning and driving IID initiatives is mainly due to the commitment given by the higher authority of the university, in this case, UKM. Indeed, without such top-level commitment, IID activities can rarely be planned, much less, implemented. Accordingly, specific commitment and direction from ASEAN are needed to drive its member countries to engage in IID. Such commitment needs to be translated into viable programmes for RCMs to be implemented.

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Note

1. In this paper, universities, research councils and the RCMs are referred as any type of formal and informal physical and virtual platforms that facilitate the process of dissemination of research outcomes from universities and research councils to the society. These include secretariats, conferences, seminars, forums,
industry and community engagement projects, funds providers and others who shape the nature and extent of human interaction at the cross-national levels. In this paper, RCMs may not necessarily be initiated and operated from within Southeast Asia, but may also be platforms hosted outside the Southeast Asia in which their services are made available to the communities.

References


Appendix 1. Participating organisations

RCMs:

- ASEAN University Network Secretariat (AUN)
- AsiaEngage
- SEAMEO - Regional Centre for Higher Education and Development (SEAMEO-RIHED)
- SEAMEO - Regional Center for Educational Innovation and Technology (SEAMEO-INNOTECH)
- South East Asian Association for Institutional Research (SEAAIR)
- Asian Heads of Research Councils (ASIAHORCs)

Research councils:

- National Research Council of the Philippines (NRCP)
- Philippine Council for Agriculture, Aquatic and Natural Resources R&D (PCAARRD)
- Philippine Council for Health Research and Development (PCHRD)
- Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)
- Vietnam Academy of Science and Technology (VAST)
- National Council for Science and Technology Policy Vietnam (NCSTP)
- National Science and Research Council Malaysia (NSRC)
- National Research Council of Thailand (NRCT)
- National Research Council of Indonesia (DRN)
- Indonesian Institute of Sciences (LIPI)
- The Agency for the Assessment and Application of Technology Indonesia (BPPT)

Universities:

- Chulalongkorn University, Thailand
- Mahidol University, Thailand
- Vietnam National University, Hanoi, Vietnam
- De La Salle University, Philippines
- Ateneo de Manila University, Philippines
- Institut Teknologi Bandung, Indonesia
- Universitas Indonesia, Indonesia
- Universiti Malaya, Malaysia
- Universiti Kebangsaan Malaysia, Malaysia
## Appendix 2. Summary of key RCMs for IID in Southeast Asia

<table>
<thead>
<tr>
<th>RCMs</th>
<th>Institutional setting</th>
<th>Memberships/participants</th>
<th>IID-related objective</th>
<th>Regional mechanisms/activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUN</td>
<td>Established under the umbrella of ASEAN with its secretariat office in Bangkok. The thematic network of AUN USR&amp;S focuses on the universities' roles in social responsibility and sustainability. The AUN USR&amp;S is hosted in UKM Malaysia.</td>
<td>Membership opens to 10 ASEAN countries with 2–4 designated universities from each country. Participation from other universities is through thematic networks.</td>
<td>Promoting higher education cooperation and development to enhance regional integration in achieving global standards.</td>
<td>(1) Student exchanges, internships and scholarship-based programmes</td>
</tr>
<tr>
<td>AsiaEngage</td>
<td>Programme initiated by UKM under AUN USR&amp;S thematic network, and supported by AUN, Talloires Network and ASEAN Secretariat. Secretariat permanently hosted in Malaysia and receives operating budget from the Malaysian Government.</td>
<td>Membership opens to all participants from universities, industries, NGOs, chambers of commerce, research institutions and government agencies.</td>
<td>Strengthening social responsibility and civic engagement for national and regional community development.</td>
<td>(1) Conferences, workshops, forums and meetings</td>
</tr>
<tr>
<td>SEAMEO-RIHED</td>
<td>Established under the umbrella of SEAMEO. Secretariat permanently hosted by Chulalongkorn University, Thailand, and receives operating budget from the Thai Government.</td>
<td>Universities and their researchers from the member countries participate in the programmes based on their interests.</td>
<td>Harmonising higher education towards 'One ASEAN at the Heart of Dynamic Asia'.</td>
<td>(1) Higher education policy dialogues</td>
</tr>
</tbody>
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<pre><code>                                                                                                       |                                                                                                                                                                      |                                                                                                                                                        | (2) Higher education information gateway                                                          |
                                                                                                       |                                                                                                                                                                      |                                                                                                                                                        | (3) QA, credit transfer systems and student exchanges                                             |
                                                                                                       |                                                                                                                                                                      |                                                                                                                                                        | (4) Seminars, publications, reports and translation of relevant materials                           |
                                                                                                       |                                                                                                                                                                      |                                                                                                                                                        | (continued)                                                                                       |
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<th>RCMs</th>
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<th>IID-related objective</th>
<th>Regional mechanisms/activities</th>
</tr>
</thead>
</table>
| SEAMEO-INNOTECH | Established under the umbrella of SEAMEO. Secretariat permanently hosted in Manila and receives operating budget from the Philippines Government. | Universities to provide quality teacher training and education system development programmes. | Facilitating teaching and learning through innovative and technology-based research and training solutions. | (1) Seminars, workshops and meetings  
(2) Teacher training programmes  
(3) In-depth country visits  
(4) Publications and reports |
| SEA AIR         | Established as ASEAN chapter to AIR of the USA. Operates in the form of annual conferences in a 'virtual' form. Operating budget mainly from annual conference registration fee from the participants. | Annual conference participants will become the members. The conference is open to all researchers based on their interests. | Advancing the regional agendas related to institutional research. | (1) Annual conferences and pre-conference workshops  
(2) Electronic annual journal and newsletter publications |
| ASIAHORCs       | Established under the purview of JSPS in Tokyo. Operating budget mainly from JSPS.       | Membership includes invited delegates from region's research councils and funding institutions. | Strengthening the scientific research network within Asia. | (1) Annual meeting for heads of research councils  
(2) Symposia for scientists and researchers |